

***** STN Columbus *****

FILE 'MEDLINE'
FILE 'JAPIO'
FILE 'BIOSIS'
FILE 'SCISEARCH'
FILE 'WPIDS'
FILE 'CAPLUS'
FILE 'EMBASE'

=> s membrane channel protein#

L1 331 MEMBRANE CHANNEL PROTEIN#

=> l1 and (mechp or mechp-7)

L2 2 L1 AND (MECHP OR MECHP-7)

=> dup rem l2

PROCESSING COMPLETED FOR L2

L3 1 DUP REM L2 (1 DUPLICATE REMOVED)

=> d ibib abs l3

L3 ANSWER 1 OF 1 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
DUPLICATE 1

ACCESSION NUMBER: 2000-256643 [22] WPIDS

DOC. NO. CPI: C2000-078314

TITLE: Novel human ***membrane*** ***channel***
protein and polynucleotide useful for diagnosing
and treating cell proliferative, inflammatory, secretory,
osmoregulatory, muscular, cardiovascular and neurological
disorders.

DERWENT CLASS: B04 D16

INVENTOR(S): AU-YOUNG, J; AZIMZAI, Y; BANDMAN, O; BAUGHN, M R;
CORLEY,

N C; GORGONE, G; GUEGLER, K J; HILLMAN, J L; LAL, P;
REDDY, R; TANG, Y T; YUE, H

PATENT ASSIGNEE(S): (INCY-N) INCYTE PHARM INC

COUNTRY COUNT: 85

PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

WO 2000012711 A2 20000309 (200022)* EN 140

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG US UZ VN YU ZW

AU 9961376 A 20000321 (200031)

EP 1117781 A2 20010725 (200143) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

JP 2003520565 W 20030708 (200347) 176

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012711	A2	WO 1999-US20468	19990902
AU 9961376	A	AU 1999-61376	19990902
EP 1117781	A2	EP 1999-948140	19990902
		WO 1999-US20468	19990902
JP 2003520565	W	WO 1999-US20468	19990902
		JP 2000-567698	19990902

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9961376	A Based on	WO 2000012711
EP 1117781	A2 Based on	WO 2000012711
JP 2003520565	W Based on	WO 2000012711

PRIORITY APPLN. INFO: US 1999-155263P 19990210; US 1998-155226P
19980902; US 1998-191283 19981112; US
1998-155225P 19981209; US 1999-155211P 19990126

AN 2000-256643 [22] WPIDS

AB WO 200012711 A UPAB: 20030723

NOVELTY - An isolated human ***membrane*** ***channel***
protein (***MECHP***).(I) comprising a 724, 257, 377, 491,
341, 476, 266, 182, 942, 519, 251, 323, 51, 235, 234 or 301 residue amino
acid sequence, all fully defined in the specification, and its fragments,
is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
following:

- (1) a variant with at least 95% amino acid sequence identity to (I);
- (2) an isolated and purified polynucleotide (II) encoding (I), or its

polynucleotide variant with at least 95%-sequence identity;

(3) an isolated and purified polynucleotide (IIa) complementary to (II);

(4) detecting a polynucleotide in a sample by hybridizing (IIa) to it and detecting the hybridization complex formed, the presence of the complex indicates the presence of the polynucleotide in the sample;

(5) an isolated and purified polynucleotide comprising a 2994, 1298, 1877, 2517, 1154, 1879, 1537, 884, 3156, 1774, 1505, 1478, 1971, 1424, 1224, 1300, 1060 or 1815 nucleotide sequence, all fully defined in the specification, or fragments of them;

(6) a variant with at least 95% identity to the polynucleotide of (5);

(7) an isolated and purified polynucleotide complementary to the sequence of (5);

(8) an expression vector (III) comprising at least a fragment of (II);

(9) a host cell (IV) comprising (III);

(10) production of (I), comprising culturing (IV) under expression conditions and recovering the polypeptide from the culture;

(11) a pharmaceutical composition (P) comprising (I), and a carrier;

(12) a purified antibody specifically binding to (I); and

(13) a purified agonist and antagonist of (I).

ACTIVITY - Antiarteriosclerotic; hepatotropic; cytostatic; anti-HIV; antianemic; neuroprotective; immunomodulator; antidiabetic; cardiant; hypotensive; vasotropic; antiasthmatic; nootropic; antiinflammatory; anticonvulsant; thrombolytic; antiParkinsonian; antidepressant; immunestimulant.

MECHANISM OF ACTION - Acts as aquaporins, Gap junction proteins and ion channel proteins; protein transporter. Aquaporin activity of

MECHP was demonstrated by its ability to induce osmotic water permeability in *Xenopus laevis* oocytes injected with ***MECHP*** cRNA. Oocytes injected with water were used as the control. Injected oocytes were given hypotonic shock by transferring from 200 mosM to 70 mosM modified Barth's buffer. An increase in osmotic volume of oocytes was observed at 24 deg. C which was found to be proportional to ***MECHP*** aquaporin activity in the injected oocytes.

USE - (P) is useful for diagnosing, treating and preventing disorders associated with decreased expression or activity of ***MECHP*** (claimed). Antagonist of (I) is useful for diagnosing, treating and preventing the disorders associated with increased expression and activity of ***MECHP*** (claimed). ***MECHP***, its fragment, derivatives and (II) are also useful for diagnosing; preventing and treating disorders associated with decreased expression or activity of ***MECHP*** such as cell proliferative disorders e.g. actinic keratosis, arteriosclerosis, atherosclerosis, bursitis; cancers e.g. lymphoma, melanoma, sarcoma,

teratocarcinoma; immune/inflammatory disorders e.g. AIDS, Addison's disease, adult respiratory distress syndrome (ARDS), amyloidosis; transport/secretory disorders e.g. cystic fibrosis, Chediak-Higashi syndrome, diabetes mellitus, diabetes insipidus; osmoregulatory disorders e.g. diarrhea, chronic renal failure, hypothyroidism, metabolic acidosis; muscular disorders e.g. myocarditis, cardiomyopathy, Duchenne's muscular dystrophy, polymyositis; cardiovascular disorders e.g. arteriovenous fistula, hypertension, vasculitis, aneurysms; congenital lung anomalies e.g. atelectasis, pulmonary embolism, vascular sclerosis, chronic bronchitis, lung abscess; neurological disorders e.g. Alzheimer's disease, Parkinson's disease, dementia, Huntington's disease; muscular dystrophies e.g. congenital, distal, myotonia, myasthenia gravis; and seasonal affective disorders. (I) is useful as immunogens and also for screening libraries of compounds, e.g. in drug screening techniques. (II) can be used to generate hybridization probes which can be used to map naturally occurring genomic sequences.

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